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May 5, 2005

VIA FEDERAL EXPRESS

Commissioner Michael R. Peevey
Administrative Law Judge Burton Mattson
Administrative Law Judge John E. Thorson
Mr. Richard W. Clark – Consumer Protection and Safety Division
Mr. Mark Ziering – Consumer Protection and Safety Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: **D.04-05-017 Common Format Logbook - Report on Behalf of Certain Generation Owners in California, Regarding the CPUC Common Format for Thermal Power Plant Logbooks**

Dear Commissioner Peevey, ALJs Mattson and Thorson and Messrs. Clark and Ziering:

In accordance with the guidance provided at pages 29-31 of D.04-05-017, issued May 6, 2004, (the "Decision") the Western Power Trading Forum ("WPTF")[1] wishes to provide you with the enclosed Report on Behalf of Certain Generation Owners in California, Regarding the CPUC Common Format for Thermal Power Plant Logbooks, prepared by Power Catalyst Inc. The Decision stated that the logbook proposal should be filed within 12 months of the date this decision is mailed and the parties have thus complied with this Commission directive.

Over the summer of 2004, WPTF led an Ad Hoc Group of the generating asset owners in discussions on this topic. In November, WPTF convened a second meeting with generators, and

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[1] This letter and the actions described herein are not and cannot be deemed to be consent by WPTF and the other participating parties to the Commission's assertion of jurisdiction set forth in the Decision. Furthermore, WPTF and the other participating parties expressly reserve their rights to seek relief in federal court for violations of federal law or the United States Constitution and do not present any such claims to the Commission in this letter, reserving those claims for submission to a federal forum. WPTF and the other named parties make this express reservation pursuant to the provisions of *England v. Louisiana State Bd. of Medical Examiners* (1984) 375 U.S. 411, 420-21; *See United Parcel Service v. California Public Utilities Comm'n* (9th Cir. 1996) 77 F.3d 1178, 1182.

Commissioner Michael R. Peevey
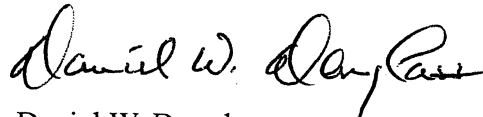Administrative Law Judge Burton Mattson
Administrative Law Judge John E. Thorson
Mr. Richard Clark
Mr. Mark Ziering
May 5, 2005
Page 2

employees of the CPUC's Consumer Protection And Safety Division, the department responsible for enforcing said standards. The attendees discussed the outline of a report to be submitted to the CPUC in the spring of 2005. The Ad Hoc Group members agreed to move forward with and share the funding of the enclosed report.

Should you have any questions, please contact the undersigned, or Mr. Gary Ackerman, Executive Director of WPTF, at (650) 324-3250.

Very truly yours,

Daniel W. Douglass
Counsel for Western Power Trading Forum

DWD/md
Enclosure

REPORT ON BEHALF OF CERTAIN GENERATION OWNERS IN CALIFORNIA, REGARDING THE CPUC COMMON FORMAT FOR THERMAL POWER PLANT LOGBOOKS

Executive Summary

Power Catalyst reviewed the systems for logging events by generators at four generator sites. The purpose is to present a 3rd Party summary of the issues for complying with the recent CPUC order for a thermal logbook format standard.

We found that systems varied dramatically from paper/form based entry systems to multi-million dollar software systems that among many other components, contained an electronic logging capability.

Each generator has taken steps to meet the CPUC logging reporting requirements for content. This content is drawn from a number of existing log systems and not just the generator operations log.

It is this investigator's opinion that the Commission can expect a significant level of success from the information obtained from standard reports submitted for its review. The standard reports will help bring Staff up to speed quickly on the background of an event or incident. More comprehensive investigation can proceed from that point with the help of generators to focus on the unique circumstances and correct interpretation of the technical data provided.

Beyond this mechanism, there are practical barriers to the expectation that there can be a single, open, searchable, and standardized logbook database capable of displaying full detail of all logged events for all generation resources in California. Difficulties include: sensitive and competitive information contained in the larger systems that contain logging sub-systems; potential software security issues from initiating outside access; and, difficulties in establishing standardized nomenclature for systems that evolved independently.

This report looks at four systems. The examination focuses on how the systems are used today and how they will be adapted to meet the CPUC directive. We discussed with the users and managers the issues with modifying the existing logbook systems for market monitoring activities.

Table of Contents

1   Introduction

On May 6, 2004, the California Public Utilities Commission (CPUC) issued Decision 04-05-018 to adopt a General Order (GO) implementing and enforcing electric generator general duty standards maintenance standards, and CAISO's outage coordination protocol. This decision was made in Rulemaking 02-11-039 to implement the provisions of Public Utilities Code § 761.3 enacted by Chapter 19 of the 2001-02 Second Extraordinary Legislative Session. The standards include the Electricity Generating Facility Logbook Standards, adopted by the California Electricity Generation Facilities Standards Committee (CEGFSC) on April 1, 2003.

In this decision, the CPUC adopted a set of Logbook standards. Each generator subject to these standards must file a Verified Statement with the Director of the Commission's CPSD that describes that it is maintaining a collection of information gathering mechanisms that together meet these standards. It must also maintain a compliance document at the generation site that describes where each data component of the standard is located. This step is now already completed by all jurisdictional generators.

As a next step, the Commission contemplated the implementation and enforcement of a common format for the Logbook standard, and encouraged parties to be proactive and develop a common logbook format proposal, to be filed within 12 months of the decision. This proposal was to consider the requirements of other logbook requirements, as may be evident in FERC guidelines and in the CAISO tariff.

Over the summer of 2004, WPTF led an Ad Hoc Group of the generating asset owners in discussions on this topic. In November, WPTF convened a second meeting with generators, and employees of the CPUC's Public Safety Division, the department responsible for enforcing said standards. The attendees discussed the outline of a report to be submitted to the CPUC in the Spring of 2005. The Ad Hoc Group members agreed to move forward with and share the funding of this report.

2   Purpose of Report

The purpose of this report is to create a detached 3rd Party review of logging systems at generators in California. The report will cover how the data is recorded and maintained, where the data is recorded and maintained as well as the current plans to meet the existing CPUC requirements.

The intention is to give the CPUC insight in the acceptability of current approaches as well as the level of effort for existing systems to accommodate additional requirements.

3   Generation Plant Reporting Background

Electricity generators run very large machines that operate at high temperatures and high pressures to burn fuel efficiently in converting the heat released into electricity. When accidents happen there are often severe consequences in the human safety, environmental, and financial arenas.

Consequently, there are significant efforts at each facility to protect employees, operate efficiently, and minimize financial and environmental consequences. The companies document those efforts by implementing logging events, such as:

- Plant Status Entry
- Control Operator Log
- Equipment Out of Service Logs
- Equipment Testing, Maintenance, Status Logs
- Work Authorization Logs
- Chemistry Logs
- Environmental Limits Logs

As well as ongoing tracking and coordination with:

- Outage Coordination
- SLIC Outages and Ratings
- AGC Control
- Voltage/Frequency History
- Accident/Event Reports

The range of complexity varies widely for existing implemented logging systems. Smaller older units have inherited physical (paper) based systems that use pre-printed forms. More modern facilities have sophisticated software systems. However, they are tailored to the company's needs as they have developed over many years. Consequently, they are multi million dollar software efforts that encompass many security and safety issues and are designed for a fleet of resources throughout the company's footprint (which may be the West, North America, or Worldwide).

Other issues are also important. In addition to the software, safety of personnel is enhanced by using physical lockout/tag out systems for equipment maintenance. Equipment clearance systems can be managed through a separate system or through the same system as the generator log. However, because they have historically been managed by the same personal, most software systems address both uses. Also, many of the related systems contain sensitive and competitively important information. Consequently, they invariably reside behind corporate firewalls where access to any user on the outside or over the internet is not allowed.

4 Review of Existing Logging Systems

Four systems were reviewed that demonstrate a range consistent with all producers in the California energy market:

1. An older gas plant that is fundamentally focused on reducing cost and supplying energy at the lowest cost possible given its current equipment
2. An older gas unit that inherited an existing logging system from the previous owner
3. An older gas unit with in-house software developed for the logging system
4. A new gas unit where 3rd party software was adopted specifically to resolve the CPUC log and format request.

4.1 Older gas plant

Cabrillo Power Plant consists of 3 control rooms (for units 1-2, 3-4, and 5) each with two shift operations. So, there are six operator logs being compiled for the plant. The logs are paper entry systems where the image is taken of the log at the end of the shift and stored electronically for retrieval and review. In addition to operator logs, there are several other systems that contain similar and sometimes overlapping information, including: Maintenance Management System (Main Saver); work orders, dispatch orders, environmental reports, daily pass down reports, daily availability reports, and, NERC GADS reports.

Cabrillo staff were concerned about CPUC actions concerning generator logbook standards because:

- Computerized logs will not improve the quality of entries. In fact, because the corporate culture is different today, it would require a significant effort. The expectation is that operators would keep the log as they do today and enter the information in an electronic system at the end of the shift. Consequently, there would be little gain but reluctance from operators and their union.

- Operator logs are not very good sources of information from the point of view of market monitoring or understanding the cause of an outage or event at the unit. Operators are usually observing symptoms of a problem in the heat of the moment without the benefit of understanding the source of the problem. Consequently, entries may indicate the unit tripped or that there was a drop in heat rate. It may be several shifts or days later that the cause is discovered and a plan to fix the problem is put in place. And, the reporting of the actual problem in most cases will not be recognized in the operator's report but will be identified in an Outstanding Work Authorization or Pass Down Report.

Consequently, Cabrillo staff felt that the generator logbook standards were not likely to attain their objective. The CPUC would more likely attain its objectives with a significant events report such as the NERC GADS report. The significant events report focuses on events that change the capability or status of the generator – and, focuses on the root cause leading up to the event. A copy of the event report used at Cabrillo is included in the appendix.

4.2 Older gas unit with inherited logging system

Mirant has 3 gas plants in California that were purchased from PG&E. At the time of purchase, PG&E licensed Mirant to continue using the current version of its generator operations and maintenance logging software. The legacy software (Unit Status Reporting System, or USRS) meets current needs and requirements but is difficult and costly to adapt to new situations. The software is available on the Mirant extranet but not integrated with other business systems.

Mirant is currently developing in-house their own generator operation log capability with a 3rd party software product, Tracking and Operation of Generating Assets (TOGA). Currently it is used for operations of generators on the East Coast to support NERC reporting requirements – it is not adapted to the California requirement. The existing vintage system (USRS) supports the generator log format standard. Mirant's plans include the eventual extension of the TOGA system to generator log and CA format requirement. However, Mirant's requirements and software development is driven by the needs of many generators throughout North America – potentially a different set of requirements than the recent CPUC recommendations.

Mirant is also using a software package (eDNA) to report and store the status of live operation information. It is capable of providing information to support the midnight report.

4.3 Older gas unit with in-house logging software

The discussion at PG&E focused on the logging procedures used at both hydro and steam facilities.

The gas plant visited was Hunter's Point in San Francisco which uses PG&E's Unit Status Reporting System (USRS). The Unit 1 at Hunter's Point was built in 1929, Units 2 and 3 just after WWII and Unit 4 is a gas unit currently in operation that was built in 1958. Units 2 and 3 were retired in 2000, Unit 1 was converted to an emergency peaker in 1976 and is still in service although used infrequently. Most of the log entries involve Unit 4 and the remaining yard equipment from Units 1,2, and 3.

USRS was developed in house at PG&E some time ago (1994) to replace the paper logging system. Some of the features of USRS reflect its history. For example, there are 4 types of logs: Control Operator (CO), Assistant Control Operator (ACO), Senior Control Operator (SCO) and Operations Foreman (OF). Each of these log types point back to the types of logs that were filed prior to the creation of a digital equivalent.

The USRS system supports the kinds of features desirable to create an undisputable audit trail. No entry is ever deleted. When an operator needs to correct an error in a log, the previous entry can be flagged as invalid. Then a new entry is created to take its place. However, the system retains all the invalidated logs which can be investigated when necessary.

In addition to supporting the generator logs, USRS (and the in progress replacement GUSS) is used for NERC Reporting, Unit Scheduling, Unit Declarations, Instructed Deviations, Meter Data, Fuel Reporting, Fuel Oil Tracking (storage tank levels and availability), Steam Flow, hourly steam usage, and reporting of Cost per MWh.

PG&E is developing a more modern version of USRS, Generation Unit Status and Schedules (GUSS). GUSS has been implemented for hydro facilities but is still likely a year away from implementation for the gas units. The newer version has several very desirable properties. For example, with USRS, looking for the same problem at multiple plants requires exiting the current plant, logging back into the database for the new plant, and then creating the search query for the information at the second plant. The GUSS application, by comparison, allows corporate logins to search the database across facilities.

4.4 Newer gas unit with 3rd party software

Calpine has 3 gas turbines feeding a steam turbine at the Delta Energy Center in Pittsburg. In response to the CPUC standards efforts, Calpine considered a major effort to electronically upgrade their logbook procedures. The investigation led them to a South African software developer (St. James Software) with a promising product. (This review addresses the generator operation log and does not cover Calpine's related efforts with work order logbooks and procedures.)

After a specification and design effort, the JLogbook software was implemented on the company's extranet and is currently being used to enter logs, produce midnight reports and meet the CPUC requirements. The software is easy to use and is fairly easy to integrate with other company products and procedures.

The efforts at the Delta Energy Center have been adopted at other Calpine plants in California as well as other Calpine plants in North America.

5 Logbook Software Providers

5.1 St. James Software

St. James Software (Nicholas Hurley) provides a web based system (JLogbook) which was adopted by Calpine.

The system was developed as a logging tool that could address a range of situations for companies in many different industries. In cooperation with Calpine, the Jlogbook system was configured to address the internal needs of Calpine as well as the CPUC logging requirements. The system includes:

- Corporate visibility to logs immediately
- Entries are not limited to operators
- Easy to filter and focus on particular issues
- Presentation is improved
- Password control for each user
- Users can access logs with off the shelf query tools

It should be noted however that JLogbook remains behind Calpine's corporate firewall and is not accessible over the internet or from locations outside Calpine's direct control.

This appears to be a relatively low cost option for solving the log book problem. However, it may not address all the logging issues for many companies. Nevertheless, a three session license is less than $1000. And, it does not require special equipment at the site other than a computer capable of extranet access and a computer to host the application.

Appendix A contains an example of the questionnaire sent by Nick Hurley to set up the initial configuration.

However, the cost to implement for a generator is much greater because of the training, configuration and integration effort with other systems.

5.2 AES system

AES purchased their plant from Edison. At the time the logging and work order system used MS Word. It was not database oriented and there were no specific functions that created a secure copy of the logs that prevented editing and revision at a later date.

Terry Kunz (tkunz@socal.rr.com) was an Edison operator that moved to the AES management team when the plant transferred. Terry pursued improving the logging and work order system on his own time. AES later licensed Terry's efforts for use at the plant and Terry's core capability is available to others who might want to use the same system. An example of the Midnight Report created by Terry is contained in the appendix. The Midnight Report is an example of how shift operators pass on status and exception information to the next shift.

The AES capability is based on Filemaker. Consequently, it is database oriented and has protections that lock a log once it has been entered for the day. A log can be amended or updated with more current information – but the original record is preserved. The Filemaker capability allows for database searching and the ability to export results to Excel (as a csv file).

The current AES system is a generator logging and work order system which is also being integrated with the billing system. It will require additional development efforts to separate the capabilities and make a stand alone logging system if the CPUC were to require it.

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6 Meeting PUC Needs and Requirements

The CPUC has identified specific objectives for generator logbooks:

Legible

Searchable

> For example, a software application supported by a database would offer the ability to search records by field or for recurring key works to investigate events with related issues and causes.

Electronic

> For example, ASCII files with information that can be downloaded into a report or create a comma delimited file for import into another application.

Once logged, Immutable

> For example, protections from the application that protect information from being changed by application users. For example, at the end of a shift (or perhaps the next day after a shift supervisor has reviewed the information) log entries would no longer be subject to change. Additional information could update or revise entries. However, the original information would be preserved for any reviews in the future.

In further identifying the content, the PUC has identified the following logs:

Plant Status

Equipment Out of Service

Outstanding Work Authorizations

Chronological Entries

Start of Shift

The commission expects that these logs will:

Support investigation of an event

Meet standards for information content

Support retrieving records by event and date

Be auditable

Be consistent with other information provided the PUC

Be consistent with information provided the CAISO

7 Conclusion

The CPUC will establish generation operation logbook standards in order to support its market monitoring and investigation duties. This report establishes the facts for implementation by examining the systems and processes in place at four generator sites that are generally representative of all generators in California that would need to comply with the CPUC order.

The first broad conclusion is that it is not feasible for the CPUC to have remote electronic access to existing logbook systems maintained by the generators. Remote access poses software security issues that would be in contravention of the NERC Cyber Standard 1200 for data security and firewall protections (adopted by the NERC Board of Trustees, August 13, 2003). In addition, remote access would require extensive modification by each generator to create proper software security and limit external access to non proprietary data. The current systems have been developed and

integrated into corporate monitoring and decision making systems that mix data of CPUC interest with corporate proprietary information.

The second broad conclusion is that it would be exceedingly frustrating for the CPUC to establish its own database where generators submitted periodic information updates. This consultant's years of personal experience working with Tennessee Valley Authority's Strategic Planning Staff provides insights to the pitfalls of such an effort. TVA's Strategic Planning Staff compiled unit data for evaluating plant performance. This was a Herculean effort to keep the data consistent and accurate even for a company with common nomenclature, culture, and goals. A similar effort by the CPUC in California would be labor intensive. And, because of the inherent lack of uniformity, the data would not likely produce the ability to compare statistics across generators.

The ultimate conclusion is that each unit maintains extensive logging systems that can provide the needed information for CPUC market monitoring and regulatory efforts. Generators are taking steps so that their systems can produce reports for submission to the Commission in a common standardized format. This level of standardization will allow the Commission to easily process and grasp the fundamentals of the reported situation. However, understanding the root cause of an event and the appropriateness of the generator's response will likely require a follow up of the initial report where the generator takes the effort to explain the circumstances in detail. And, that explanation will require the interpretation of the generators terminology, nomenclature, and inclusion of data from many systems not directly linked to the generator operator log.

In order to accomplish the Commission's goal, it does not appear that there is much to be gained from standardizing the generators own logging system. However, there does appear to be efficiencies and communication improvements from generators reporting information to the CPUC in a standardized format so that there is a common understanding of the initial information.

Acknowledgements

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8   Appendix: jLogbook Questionnaire for the Power Utility Industry

The following is a questionnaire distributed by the St. James software as the first step in establishing the configuration of their system for the particular application. From their description there are no software modifications required in most cases.

8.1 Introduction

Please complete the attached questionnaire to be used as the starting point for your Logbook configuration.

You can simply type over examples or type in the area provided and mail the questionnaire back to nickh@sjsoft.com

Please specify any additional requirements you are looking for.

Please feel free to call me (Nick Hurley) on 1 877 696 2047 xt 86 if you have any queries.

8.2 System Values

Title of Logbook Screen: (Example: Missouri Energy Providers)

Start time of First Shift: (Example : 7:30am)

Number of hours in Shift: (Example : 8 hours)

Technical contact: *Phone Number*:   *email address*:

8.3 Settings for the Combo Boxes in the Log.

Enter the values you would like to appear in the combos for your site. These are the options that the operator will choose from when entering a new log. For example:

Area   could be items like OOS, EMS, AGC, Derate etc.

System   could be values like CTG, STG and Fuel etc.

Equipment   examples could be values like Steam Turbine, Combustion Turbine, Generator etc,

Special   examples could be values like Derate, Failed Start etc.

#	Area	System	Equipment	Special
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

11				
12				
13				
14				

Note: If you would like different names for your combos or more combos, please enter the names of the combos and the values you would like to appear in them. For example,

Name of Combo: Reason Code.

Values: Overload, Regular Shutdown, Faulty Equipment, Operator Error, Upstream problem, Downstream Problem.

8.4 Usernames

Positions: The position of the user usually defines the ability for that user. Select the capability of each position in the table below. (Typical values have been entered as examples only)

Position	Add logs	Modify logs	Delete Logs	Configure	Auto Log Off
Operator	Yes	only their own	No	No	end of shift
Supervisor	Yes	Only their own	No	No	No
Manager	No	No	No	No	Yes
Technical	Yes	Only their own	No	No	Yes
Admin	Yes	Yes	Yes	Yes	No

Enter the *user name and position* of each user in the table below. You can use the third and fourth columns if you have many users.

Usernames: These are the names that each user will enter to log in. Typically, this is a single word made up of the first and last names of the user. Eg. the user Michael Smith could be given the user name *msmith*.

Position: Enter one of the positions listed above for each user. I.e. Operator, Supervisor, Manager, Technical or Admin.

Name	Position	Name	Position
msmith	Operator	brubble	admin

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8.5 Any Additional Requirements

Please enter any additional requirements below:

======= End of questionnaire

Here is a sample screen from the initial configuration effort for a Calpine log book:

Calpine Metcalf Site (Calpine) - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back ▾ · Search · Favorites ·

Address http://calpine.sjsoft.com/ · Go · Links » · Norton Internet Security · Norton AntiVirus

Add New Filter Edit Filter [0] [days] [ ] Print Form Options Configure Help Logout logged in as **johnst**

Area	North	Shift	2	Log Date	01 Feb, 05	Time	05:15
System	ACW	Message	*homer is in the cooling tower basin again...*				
Equipment	Analzer						
Priority	3						
User Name	RMORRISON	Attachment	(no attachment)	Audit log	(no attachment)	Special	LF

Page 1 of 2. First Next/Last Print

Day	Log Date	Time	Area	System	Equip	Message	User Name	Special	Pri
Tue	15 Mar, 05	13:09	North	ACW	Analzer	*test on the viewable and printable size of the message field* *what prints and does it show on the reports* *Can you see me now?*	bens	LF	3
Fri	11 Mar, 05	23:53	West	CEM	Building	*Ambient temperature is greater than 100, causing a derating of chemical processing*	johnst	LF	3
Fri	25 Feb, 05	13:05	East	AST	Lighting	*Two lights out at skid. MAI*	admin	LF	2
Mon	07 Feb, 05	14:52	South	IAS	dewpoint analyzer	*Checking how the new System can define the Equipment.*	minnes	LF	2
Tue	01 Feb, 05	05:15	North	ACW	Analzer	*homer is in the cooling tower basin again...*	RMORRISON	LF	3
Tue	01 Feb, 05	05:10	North	ACW	Analzer		jgale	LF	3
Sat	29 Jan, 05	01:31	General Entry	STG	ST	*ST Breaker 242 open. ST shutdown/rolling down to stop.*	admin	Breaker Closed	3

start · Yahoo! Mail - jpstrem... · Calpine Metcalf Site (... · Temporary Stuff · PowerCatalyst Logbo... · 11:58 AM

9 Appendix: AES Midnight Report

The next page contains an example of the (Operational Log) Midnight Report developed by Terry Kunz for shift changes at AES.

The features developed for the Midnight Report include:

- An unlimited number of logs.
- A chronological record of all events/information.
- Security
    - o Individual users can be given privileges for: view only, or, edit
    - o All previous day logs are locked, no editing permitted by anyone
    - o Current days log can be edited with changes recorded as updates
- Searchable
    - o Search range can include multiple logs.
    - o Search criteria can be date range, margin flag, log title, or entry text.
    - o Search criteria can be saved and reused.
- Convenience features
    - o Auto Entries for easy entry of repeatable entries.
    - o Index of the days entries for easy selection.
- New Day feature
    - o New Day process allows the user to decide when the new days log is started.
    - o Allows catching up on entries after midnight.
- Flexibility features
    - o Status Form allows entry of up to eighty data points.
    - o Critical Information list stores important information.
    - o Crew page allows entering names and positions of each person on shift automatically creating the log sign in entry.
    - o Unlimited Data Groups for each log to record numeric or text data such as:
        - Lock Out Tag out entries
        - Chemical readings
        - Any other data

Status Form

Operations Log

Created on: 3/5/2005
Created at: 8:50
By: TVK

Form # Total
1 of 1

Unit 1		
Air Leakage		cfm
Load		MW's
dfsdf		df
MW		MW's
dsff		sf
sfsd		sf
sfddf		sdf
asfdff		
rrrr		
sfdsdf		sfd

Unit 2		
Air Leakage		cfm
Load		MW's
fdsdfd		

Tanks		
Tank 1		ft
Tank 2		in
Tank 3		gal
Tank 4		gal
Tank 5		ft
Tank 6		ft
Tank 7		ft

Other		

Misc		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

Stuff		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

More Stuff	
test	
test	
3	
4	
5	
6	
7	
8	
9	
10	
11	

And More Stuff	
test	
test	
4	
5	
6	
7	
8	
9	
10	
11	
12	

And, the log form:

Menu
Print
Help
Close

History
1/23/2005

| < | Current | > |

Search

Entries → Data Groups → None ↵

Entry 1 selected out of 6 total

| Auto Entry | Status | Critical | Crews | New Day | Record | Clear |

First
Last

11:08   Auto entry 1&2 log

ddd

M

Options

11:08   New days log created.

Options

11:21   vsxcvxvxc

yyyyy

M

Options

11:23   User entry 1&2 log

↔

Options

17:46   Day Shift: - log reviewed.
         Electrician - TVK.
OK

M

Options

17:51   sdfsdfsdf releases his clearance on sdfsdfsdfsd after .

         # TVK

Options

You have 0 unread messages

:

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10 Appendix: Cabrillo Event Report

Cabrillo Power Significant Event Report

* = Required Data

Section A - Event Identification					
*Submitted By:			▼	*Plant:	▼
Job Title:				*Unit:	▼

*Event Type:				Lost MW
☐ Forced Outage	☐ Maintenance Outage	☐ Forced Derate	☐ Planned Derate	**0.00**
☐ Safety	☐ Environmental	☐ Other	☐ Reserve Shutdown	**Hours Down/Derated**
				0.00

Section B - Event Magnitude

	Date	Time	*If event is a Derating:*	
*Event Start:	1/1/2002	15:20	Derate Cause: Other	▼
*Event End:	1/1/2002	16:20	Net Avail Cap:	0
			Calculated Net Avail Cap:	0

Section C - Primary Cause of Event

*Brief Verbal Description Of Event:

*Notifications and Contacts Made For This Event:

*Equipment Involved:

*Work required to return to service:

*Chronological sequence of events:

Specific actions which may have caused or contributed to the event:

Specific factors which may have caused or contributed to the event:

Recommendations for Corrective Action/Comments:

(END OF ATTACHMENT)